

The Scud Battery

An Inside Look at the Threat

During the April 1997 Exercise Roving Sands, I had the unusual opportunity to command a Scud Battery in northern New Mexico. Roving Sands is an annual joint and combined training exercise for theater-level tactical air operations, air defense and missile defense, the latter conducted under the auspices of Central Command (CENTCOM).

The Army bought 29 Scud launchers through the foreign military sales program to use to improve the US military's theater missile defense capabilities. This ongoing research and training was motivated by Iraq's Scud missile attacks during the Persian Gulf War.

Artillerymen from the 1st Battalion, 12th Field Artillery, (Multiple-Launch Rocket System), 17th Field Artillery Brigade, Fort Sill, Oklahoma, operated six of these Scud launchers for four weeks as members of the Roving Sands opposing force (OPFOR). The battalion organized the Scud launchers into three batteries of two Scuds each—I commanded one of them for 10 days and a Service Battery with six ZIL-131 support trucks for the remaining two weeks of the exercise. (The ZIL-131 is the old Soviet version of the Army five-ton truck.) This article is about our potential enemies' deep strike Scud batteries and how they function day-to-day.

Scud Launchers. The Scud is an area fire munition, not a precision weapon. Its launchers, called transporter-erector-launchers (TELs), are slow, bulkier than MLRS launchers and wheeled rather than tracked. Although the TELs are highly mobile and fairly easy to hide, their wheeled feature limits their trafficability.

The cab accommodates a crew of four, each sitting in a separate compartment with dividers. Thus, crew members must use radio headsets to talk to each other inside a moving Scud, which uses a loud diesel engine. The four compartments are more cramped than the area for the MLRS crew.

The Scud requires a lot more time to launch than a missile from an MLRS launcher—about 45 minutes to one hour

as compared to just a few minutes for a skilled MLRS crew of three. The MLRS can "shoot and scoot," but the Scud launcher must pull into position, raise the missile, shoot, lower the missile and then scoot. (We never actually fired a missile during Roving Sands; we simulated launches or dry fired.)

Even though the Scud launcher is wheeled, its inferior engine, transmission and aerodynamics make its road speed comparable to the MLRS (a maximum speed of about 40 kilometers per hour). The Scud launcher's overland speed is generally slower than the MLRS launcher, depending on the roughness of the terrain.

We used desert camouflage nets to hide the Scud in the stark New Mexico landscape. The Scud launchers easily could be hidden in terrain with more vegetation, such as that used in training at Fort Sill. Like an MLRS launcher, the Scud launcher can be backed into a tree line and hidden from radar and aircraft.

Our battalion's six Scud launchers had more mechanical problems than our MLRS launchers. These problems ranged from transmission troubles to exhaust systems blowing out sparks and starting grass fires. (The latter was easily corrected with makeshift spark arresters.) In contrast, the hydraulics for raising and lowering the Scud were reliable and rarely broke down.

It's possible that the Soviet-made Scud launchers bought through foreign military sales were old and ne-

glected after the end of the Cold War—our American mechanics constantly had to work on them. Although our Scud launchers rarely broke down completely, they had far too many routine mechanical problems.

ZIL-131 Support Trucks. My experience with the ZILs was similar: they were slow and bulky and had lots of mechanical difficulties.

The ZILs were supposed to have a maximum speed of around 50 to 60 kilometers per hour. But in practice, the average maximum speed was 30 to 40 kilometers per hour. My best-running ZIL reached a speed of 55 kilometers per hour on the blacktop—once. The other five typically pattered along at about 30 to 35 kilometers per hour. The ZILs use leaded gasoline (old "regular gas").

The ZILs were not only slow, but also broke down routinely, even without hauling a payload. On any given day, we had at least one ZIL out of action. The unreliability of the Russian ZIL would certainly have an impact on Scud battery resupply.

Conclusion. After Roving Sands, many of our soldiers felt better prepared to fight an enemy equipped with Scuds and ZILs. The old adage of "Know your enemy" certainly applies, and it is comforting to know the Scud launcher and its support vehicle are inferior.

Of course, regardless of how slow and unreliable the system is, once fired, Scud missiles can be very deadly. A look at the threat "from the inside" is instructive.



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